

## CLAIMS

1. A preparation of encapsulated bioavailable chelating agents comprised of the following ingredients:
  - a) one or more members selected from a first group consisting of: R-(+)-.alpha.-lipoic acid (substantially enantiomerically pure), S-(-)-.alpha.-lipoic acid (substantially enantiomerically pure), R/S-.alpha.-lipoic acid (racemic mixture), R/S-.gamma.-lipoic acid (racemic mixture), other isomers of alpha lipoic acid, derivatives of alpha lipoic acid, dihydrolipoic acid (DHLA); wherein at least 1% of said one or more members from said first group is in microspheres or liposomes; and
  - b) one or more members selected from a second group consisting of: EDTA, EGTA, DPTA, TTHA, HEDHA, NOTA, DOTA, HEDTA, other polyaminopolycarboxylic acids, iminodiacetic acid (IDA), cyclam, penicillamine, dimercaptosuccinic acid, tartrate, thiomalic acid, crown ethers, nitrilotriacetatic acid (NTA), 3,6-dioxaoctanedithioamide, 3,6-dioxaoctanediamide, salicyladoximine, dithio-oxamide, 8-hydroxyquinoline, cupferron, 2,2'-thiobis(ethyl acetoacetate), 2,2'-dipyridyl; wherein at least 1% of said one or more members from said second group is in microspheres or liposomes; and
  - c) one or more members selected from a third group consisting of:  
lecithin, phosphatidylcholine, phosphatidylserine, phosphatidylethanolamine, dilinoleylphosphatidylcholine, lysolipids, dipalmitoylphosphatidylcholine, distearoylphosphatidylcholine, phosphatidylcholine, phosphatidic acid, sphingomyelin, cholesterol, cholesterol sulfate, cholesterol hemisuccinate, tocopherol hemisuccinate,

phosphatidylethanolamine, phosphatidylinositol, palmitic acid, stearic acid, oleic acid, linolenic acid, linoleic acid; wherein at least 1% of said one or more members from said third group is in microspheres or liposomes.